

IN THE CLAIMS

1. (original) A method for detecting errors in GPS accuracy, comprising:
determining an initial GPS position of a marker;
receiving GPS signals at the marker;
calculating, from the GPS signals, a GPS coordinate position of the marker;
comparing the GPS coordinate position and the initial GPS position; and
issuing a warning if the GPS coordinate position differs from the initial GPS position by more than a predetermined amount.

2. (original) The method of claim 1, said determining further comprises obtaining coordinates from a site survey.

3. (original) The method of claim 1, said determining further comprising:
receiving GPS signals at the marker;
obtaining a single sample of the GPS signals; and
calculating a single GPS position from the single sample of the GPS signals; and
setting said initial GPS position at the single GPS position.

4. (currently amended) ~~The method of claim 1,~~ A method for detecting errors in GPS accuracy, comprising:

determining an initial GPS position of a marker;
receiving GPS signals at the marker;
calculating, from the GPS signals, a GPS coordinate position of the marker;
comparing the GPS coordinate position and the initial GPS position; and

issuing a warning if the GPS coordinate position differs from the initial GPS position by more than a predetermined amount;

said determining further comprising:

calculating a plurality of GPS positions for the marker over a period of time;

statistically analyzing the plurality of GPS positions; and

setting said initial GPS position based on a result of said analyzing.

5. (original) The method of claim 4, said analyzing comprising taking an average of at least some of the plurality of GPS positions.

6. (original) The method of claim 4, said analyzing including disregarding aberrant ones of the plurality of GPS positions.

7. (original) The method of claim 1, further comprising issuing a warning if there are insufficient GPS signals to perform said calculating.

8. (currently amended) ~~The method of claim 1, further comprising:~~ A method for detecting errors in GPS accuracy, comprising:

determining an initial GPS position of a marker;

receiving GPS signals at the marker;

calculating, from the GPS signals, a GPS coordinate position of the marker;

comparing the GPS coordinate position and the initial GPS position;

issuing a warning if the GPS coordinate position differs from the initial GPS position by more than a predetermined amount;

identifying, in response to said issuing, a source of local interference; and

neutralizing the source of local interference.

9. (original) A system for detecting local interference in GPS signals, comprising:

- a GPS receiver capable of determining its GPS coordinates;
- a memory capable of storing an initial location of said GPS receiver and a user-defined range of error;
- a processor being programmed to determine whether GPS coordinates from said GPS receiver differ from said initial location by more than a range of error, and for issuing a warning in response thereto.

10. (original) The system of claim 9, further comprising:

- a remote unit including said GPS receiver, said memory, said processor, and a transmitter capable of sending said warning; and
- a monitoring unit including a receiver capable of receiving said warning and a display capable of displaying information relating to said warning.

11. (currently amended) ~~The system of claim 9, further comprising:~~ A system for detecting local interference in GPS signals, comprising:

- a GPS receiver capable of determining its GPS coordinates;
- a memory capable of storing an initial location of said GPS receiver and a user-defined range of error;
- a processor being programmed to determine whether GPS coordinates from said GPS receiver differ from said initial location by more than a range of error, and for issuing a warning in response thereto;
- a plurality of remote units, each including said GPS receiver, said memory, said processor, and a transmitter capable of sending said warning; and

a plurality of remote units, each including said GPS receiver, said memory, said processor, and a transmitter capable of sending said warning; and

a monitoring unit including a receiver capable of receiving said warning from each of said plurality of remote units, and a display capable of displaying information relating to said warning;

wherein said plurality of remote units collectively provide local interference detection over an area.

12. (new) A method for detecting errors in GPS accuracy, comprising:
determining an initial GPS position of a marker;
receiving GPS signals at the marker;
calculating, from the GPS signals, a GPS coordinate position of the marker;
comparing the GPS coordinate position and the initial GPS position; and
issuing a warning if the GPS coordinate position differs from the initial GPS position by more than a predetermined amount;
wherein the marker is in the same location for said determining and said calculating.

13. (new) The method of claim 12, said determining further comprising:
receiving GPS signals at the marker;
obtaining a single sample of the GPS signals;
calculating a single GPS position from the single sample of the GPS signals; and
setting said initial GPS position at the single GPS position.

14. (new) The method of claim 12, said determining further comprising:

calculating a plurality of GPS positions for the marker over a period of time;

statistically analyzing the plurality of GPS positions; and

setting said initial GPS position based on a result of said analyzing.

15. (new) The method of claim 14, said analyzing comprising taking an average of at least some of the plurality of GPS positions.

16. (new) The method of claim 14, said analyzing including disregarding aberrant ones of the plurality of GPS positions.

17. (new) The method of claim 1, further comprising issuing a warning if there are insufficient GPS signals to perform said calculating.

18. (new) The method of claim 1, further comprising:

identifying, in response to said issuing, a source of local interference; and

neutralizing the source of local interference.

19. (new) A system for detecting local interference in GPS signals, comprising:

a stationary GPS receiver capable of determining its GPS coordinates;

a memory capable of storing an initial location of said GPS receiver and a user-defined range of error; and

a processor being programmed to determine whether GPS coordinates from said GPS receiver differ from said initial location by more than a range of error, and for issuing a warning in response thereto.

20. (new) The system of claim 19, further comprising:

a remote unit including said GPS receiver, said memory, said processor, and a transmitter capable of sending said warning; and

a monitoring unit including a receiver capable of receiving said warning and a display capable of displaying information relating to said warning.

21. (new) The system of claim 19, further comprising:

a plurality of remote units, each including said GPS receiver, said memory, said processor, and a transmitter capable of sending said warning; and

a monitoring unit including a receiver capable of receiving said warning from each of said plurality of remote units, and a display capable of displaying information relating to said warning;

wherein said plurality of remote units collectively provide local interference detection over an area.

22. (new) A method for detecting errors in GPS accuracy, comprising:

determining an initial GPS position of a marker;

receiving GPS signals at the marker;

calculating, from the GPS signals, a GPS coordinate position of the marker;

comparing the GPS coordinate position and the initial GPS position;

issuing a warning if the GPS coordinate position differs from the initial GPS position by more than a predetermined amount; and

identifying, in response to at least said issuing, a source of local interference.

23. (new) A method for detecting errors in GPS accuracy, comprising:

- determining an initial GPS position of a marker;
- receiving GPS signals at the marker;
- calculating, from the GPS signals, a GPS coordinate position of the marker;
- comparing the GPS coordinate position and the initial GPS position;
- issuing a warning if the GPS coordinate position differs from the initial GPS position by more than a predetermined amount; and
- neutralizing at least one source of local interference that is at least partially responsible for the GPS coordinate position differing from the initial GPS position by more than the predetermined amount.